

REMARKS

Applicants respectfully request reconsideration and further examination of the present application.

I. Amendments to the Claims

Claims 1-8, 10, 12-47, 49, 51, 52 and 54 have been amended and claims 2, 9, 11, 48 and 50 have been canceled. Upon entry of this amendment, claims 1, 3-8, 10, 12-47, 49 and 51-55 will be pending.

The above-noted claims have been amended to provide greater clarity and to correct typographical errors. In addition, claim 1 has been amended to include the monoalkoxylated amines of formula (12) and quaternary ammonium salts of formula (13) in the definition of the first surfactant. These formulae were previously recited in dependent claim 2, but upon review, it was determined that the subject matter of original claim 2 was not within the scope of claim 1. Accordingly, these formulae have been added to claim 1 as amended and claim 2 has been canceled.

II. Response to Restriction and Election of Species

Applicants acknowledge, in view of the Restriction and Election of Species requirement, and their response thereto, as well as the above-noted amendments and additions to the claims, that:

- claims 1, 3-8, 10, 12-47, 49 and 51-55 are now pending;
- the claims of Group I that are still pending (i.e., claims 1, 8, 10, 41, 47 and 49) are currently under examination;
- all other pending claims are withdrawn from consideration at this time for being directed to a nonelected invention; and,

- upon allowance of generic claims 1 and 41, all other pending claims will be entitled to consideration, in as much as (i) claims 3-7, 12-40, 52 and 53 incorporate embodiments of the surfactant composition of claim 1, and (ii) claims 42-46, 51, 54 and 55 incorporate embodiments of the surfactant composition of claim 41.

III. **Objection under 37 C.F.R. §1.75**

Applicants respectively submit that the above-noted amendments to claims 10 and 49 render moot the objection to these claims under 37 C.F.R. §1.75, as being exact duplicates of claims 8 and 47, respectively. Accordingly, withdrawal of this objection is respectfully requested.

IV. **Rejections under 35 U.S.C. §112, Second Paragraph**

Applicants respectively submit that the above-noted amendment to claim 41, which removed the reference to the agriculturally acceptable anion "A-" therein, renders moot the rejection of this claim under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Accordingly, withdrawal of this rejection is respectfully requested.

V. **Rejections under 35 U.S.C. §102**

Reconsideration is respectfully requested of the rejection of claims 1, 8, 41 and 47 under 35 U.S.C. §102(a), (b) and (e) as being anticipated by Crutcher (U.S. Patent No. 6,080,713).

Independent claim 1 is directed to a cationic surfactant composition for use in aqueous pesticidal formulations. The composition of claim 1 comprises the **combination** of a first surfactant and a second surfactant, each of which is selected from a group of surfactants defined by structural formulae. Specifically, the first surfactant is selected from a group consisting of chemical structures corresponding to certain (a) dialkoxylated amines or quaternary ammonium salts; (b) aminated

alkoxylated alcohols; (c) etheramines or ether quaternary ammonium salts; (d) monoalkoxylated amine or quaternary ammonium salts; (e) alkoxylated poly(hydroxyalkyl)amines; (f) monoalkoxylated amines; (g) monoalkoxylated quaternary ammonium salts; and, (h) amines. The second surfactant is selected from a group consisting of chemical structures corresponding to ceratin (a) alkoxylated diamines; (b-e) diamines; (f) di-poly(hydroxyalkyl)amines; and, (g) alkoxylated triamines.

In the text cited in the Office action, Crutcher teaches a detergent composition for laundry washing applications comprising (i) 5-50% by weight of a polyalkoxylated amine or diamine having the structures specified in column 2, or a mixture of such amines; and (ii) 95-50% by weight of a nonionic water-soluble surfactant (See column 2, lines 39-67). The "wide range" of suitable nonionic water-soluble surfactants include alkoxylated alkyl phenols, alkoxylated alcohols, polypropylene glycol alkoxylates, alkoxylated nonionic diamines and alkoxylated glycosides (See, column 4, lines 38-42). At column 5, lines 46-61 cited in the Office action, Crutcher discloses that:

[p]referred alkoxylated nonionic diamines include the condensation products of ethylene oxide with the product resulting from the reaction of propylene oxide and ethylenediamine. The hydrophobic moiety of these products consists of the reaction product of ethylenediamine and excess propylene oxide, and generally has a molecular weight of from about 2500 to about 3000. This hydrophobic moiety is condensed with ethylene oxide to the extent that the condensation product contains from about 40% to about 80% by weight of polyoxyethylene and has a molecular weight of from about 5,000 to about 11,000. Preferred alkoxylated diamines are selected from the group consisting of block polymers of propylene oxide and block polymers of ethylene oxide. Commercial examples of this type of nonionic surfactant include certain of the commercially-available Tetronic™ compounds, marketed by BASF.

It is apparently the Examiner's contention that the disclosure of polyalkoxylated amines or diamines having the structures specified in column 2 of Crutcher satisfies the "first surfactant" component called for in claim 1, while the inclusion of alkoxylated nonionic diamines among the various suitable nonionic water-soluble surfactants satisfies the "second surfactant" requirement of claim 1.

To anticipate a claim, each and every element as set forth in the claim must be described in a single prior art reference. Accordingly, in order for Crutcher to anticipate claim 1, it must disclose at least one surfactant composition including both a first surfactant falling within one of the structural formulae in (a) through (h) **in combination with** a second surfactant satisfying one of the structural formulae in (a) through (g). Crutcher does not disclose such a combination.

Applicants acknowledge that the generic structures and broad definition of the polyalkoxylated amine or diamine provided in column 2 of Crutcher may overlap to some extent with one or more of the structural formulae recited for the first surfactant component in (a) through (h) of independent claim 1. That is, there are polyalkoxylated amine or diamine surfactants that fall within the generic structures in column 2 of Crutcher and also meet the description of the first surfactant recited in claim 1. However, Applicants respectfully point out that the generic structures provided in column 2 of Crutcher also encompass one or more polyalkoxylated amine or diamine surfactants that do not satisfy the definition of the first surfactant component in (a) through (h) of claim 1. For example, in the structural formula for the polyalkoxylated diamine in column 2, between lines 56-60 of Crutcher, if R^8 and R^9 are both hydrogen and R^7 is 15 moles of propyleneoxy or butyleneoxy, such compounds would not fall within any of the structural formulae defining the first surfactant component in (a) through (h) of claim 1.

Similarly, Applicants acknowledge that the description of the preferred alkoxylated nonionic diamines in the above-quoted passage from column 5 of Crutcher may overlap to some extent with one or more of the structural formulae recited for the second surfactant component in (a) through (g) of independent claim 1. However, Crutcher's description of the preferred alkoxylated nonionic diamines in this passage also includes surfactants that do not satisfy the definition of the second surfactant in claim 1. As one example, Crutcher teaches that alkoxylated nonionic diamines suitable for inclusion in the detergent composition have molecular weights up to about 11,000,

which greatly exceeds the molecular weight of surfactants encompassed by any one of Applicants' diamine or triamine structural formulae recited in claim 1.

The mere potential for overlap between the description of the polyalkoxylated amine or diamine and alkoxylated nonionic diamines of Crutcher with the first and second surfactant components of claim 1 is insufficient to anticipate the claimed invention. Crutcher utterly fails to disclose first selecting a polyalkoxylated amine or diamine surfactant that satisfies one or more of the structural formulae recited for the first surfactant component in (a) through (h) of claim 1, and then combining it with an alkoxylated nonionic diamine selected so as to satisfy one or more of the structural formulae recited for the second surfactant component in (a) through (g) of claim 1. Moreover, none of the detergent compositions disclosed in the Examples of Crutcher satisfies each and every limitation of claim 1. In Examples 1, 2 and 3, the detergent compositions disclosed by Crutcher include either a single surfactant or a combination of an amine surfactant with an alkoxylated alkyl phenol nonionic surfactant (i.e., nonylphenol 9 mole ethoxylate or NP-9EO). Nonylphenol 9 mole ethoxylate is not an amine. The detergent compositions including only a single surfactant and the combinations with nonylphenol 9 mole ethoxylate clearly do not satisfy the requirements of claim 1 which calls for a combination of first and second surfactant components, wherein the first includes an amine functionality and the second includes a di- or triamine.

Accordingly, Applicants respectfully submit that the surfactant composition of claim 1 is novel over Crutcher. Independent claim 41 is also directed to a cationic surfactant composition for use in aqueous pesticidal formulations and comprises the combination of at least one of certain etheramines with at least one of certain diamines. The structural formulae for the etheramines and diamines in claim 41 are identical to the structural formulae set forth in (c) of claim 1 for the first surfactant and in (b) of claim 1 for the second surfactant. Accordingly, the surfactant composition of claim 41 is likewise submitted as novel over Crutcher. Dependent claims 8 and 47 are also submitted as novel over the cited reference.

VI. Rejections under 35 U.S.C. §103

Reconsideration is respectfully requested of the rejection of claims 1, 8, 41 and 47 under 35 U.S.C. §103(a) as being obvious in view of Crutcher (U.S. Patent No. 6,080,713).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. And third, the prior art reference must teach or suggest all the claim limitations. MPEP §2142.

In the instant case, Applicants respectfully submit the claimed invention is not obvious because Crutcher fails to disclose or suggest a single surfactant composition that meets the surfactant combination called for in independent claim 1 or 41. Furthermore, the Office has failed to articulate any suggestion or motivation, either in Crutcher itself or within the knowledge generally available to one of ordinary skill in the art, to modify this reference, in order to obtain the claimed combination. More particularly, the Office has failed to provide any reason why one of ordinary skill in the art, armed with the teachings of Crutcher, would be motivated to: (i) select from the large number of polyalkoxylated amine or diamine surfactant compounds encompassed by the generic formulae in column 2 of Crutcher a surfactant that satisfies one or more of the structural formulae recited for the first surfactant component in (a) through (h) of independent claim 1 or the etheramine surfactant of claim 41; and then (ii) combine it with an alkoxylated nonionic diamine selected so as to satisfy one or more of the structural formulae recited for the second surfactant component in (a) through (g) of independent claim 1 or the diamine surfactant of claim 41. In fact, Applicants respectfully submit one of ordinary skill in the art would clearly not be motivated to make such a selection and combination. Nothing in the disclosure of Crutcher suggests such a selection and combination and, given that Crutcher describes detergent compositions for laundry washing applications, there is no suggestion or motivation that

such compositions could be useful or suitably modified for use in aqueous pesticidal compositions.

To the extent Crutcher describes particular detergent compositions in the provided Examples, such compositions either included a single surfactant or combined nonylphenol 9 mole ethoxylate with an amine surfactant. Accordingly, if anything, one skilled in the art following the teaching of Crutcher would be motivated to combine a polyalkoxylated amine or diamine surfactant with an alkoxylated alkyl phenol nonionic surfactant such as nonylphenol 9 mole ethoxylate, and not with an alkoxylated nonionic diamine as suggested in the Office action. As noted above, such a combination falls clearly outside the requirements of claims 1 and 41.

Accordingly, Applicants respectfully submit claims 1 and 41 are not obvious in view of the disclosure in Crutcher. Likewise, dependent claims 8 and 47 are submitted as patentable over the cited reference.

CONCLUSION

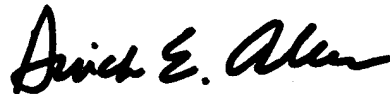
Favorable reconsideration and allowance of all pending claims are respectfully solicited.

Applicants request an extension of time to and including February 24, 2004 for filing a response to the above-mentioned Office action.

A check in the amount of \$420 in payment of the applicable extension fee is
* enclosed.

The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No. 19-1345.

Respectfully submitted,



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*Enclosures